STATE OF MARYLAND

DHMH

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February 19, 2010

Public Health & Emergency Preparedness Bulletin: # 2010:06
Reporting for the week ending 02/13/10 (MMWR Week #06)

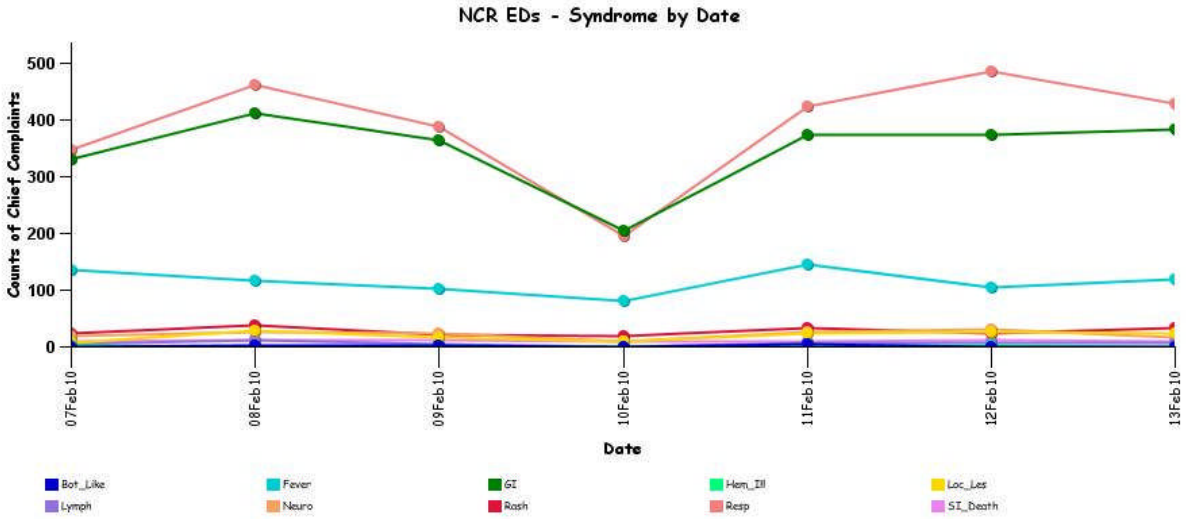
CURRENT HOMELAND SECURITY THREAT LEVELS

National: **Yellow (ELEVATED) *The threat level in the airline sector is Orange (HIGH)**
Maryland: **Yellow (ELEVATED)**

SYNDROMIC SURVEILLANCE REPORTS

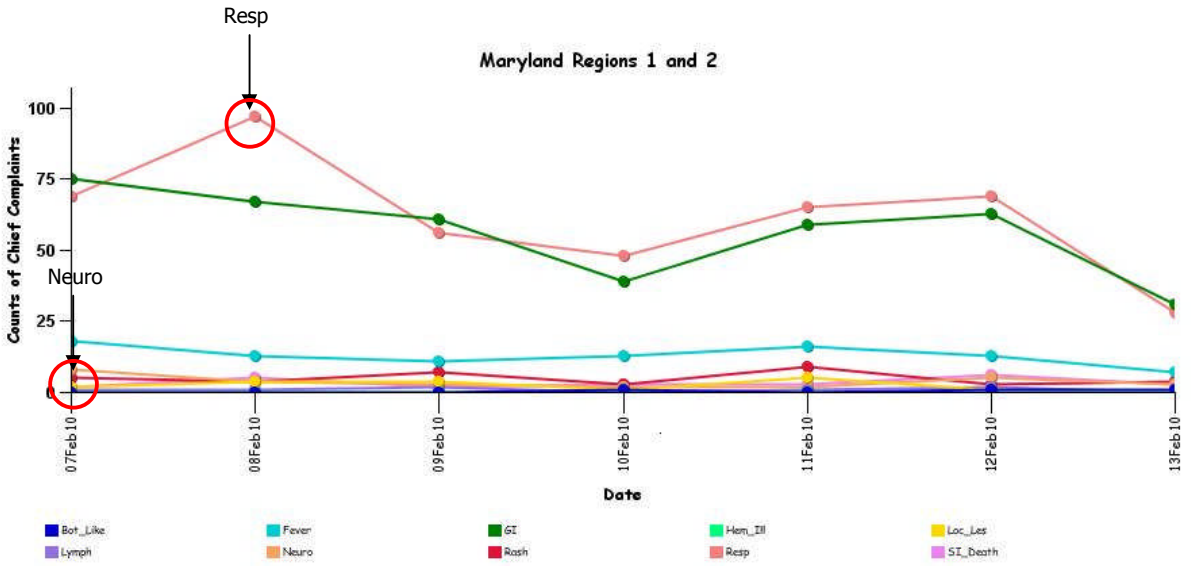
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled.
Note: ESSENCE – ANCR Spring 2006 (v 1.3) now uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

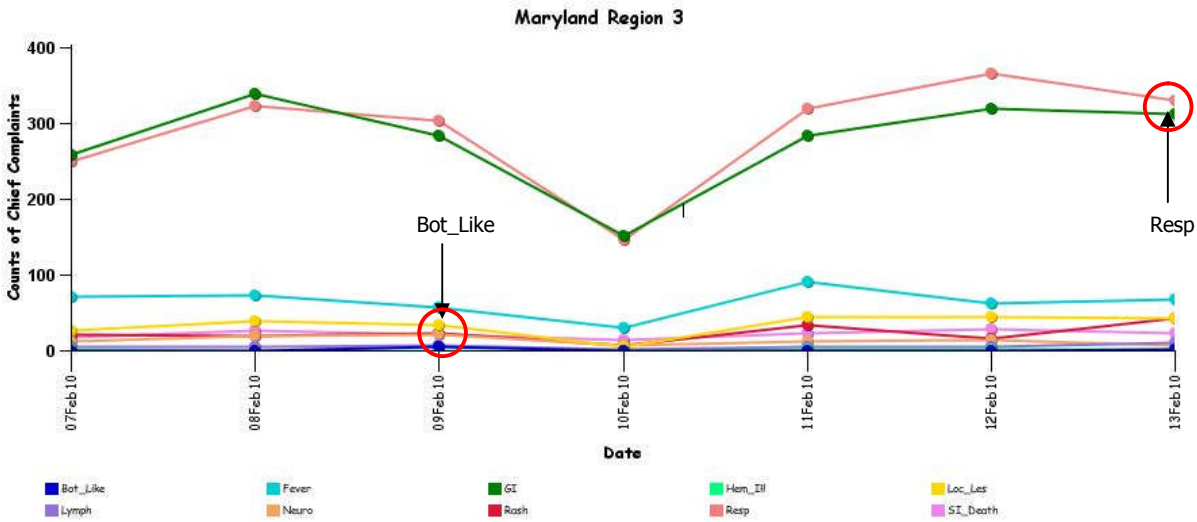


* Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

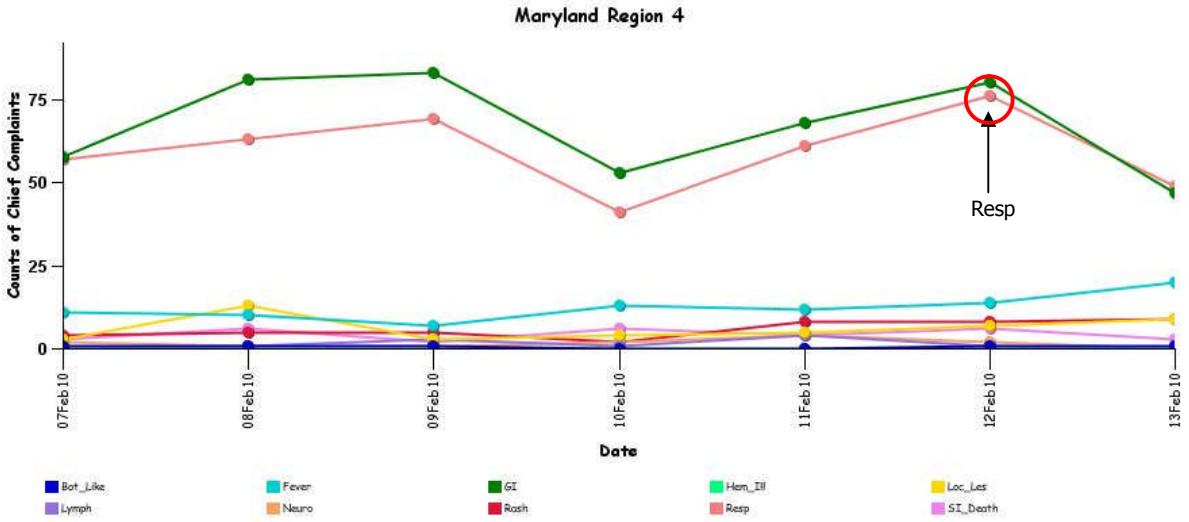
MARYLAND ESSENCE:



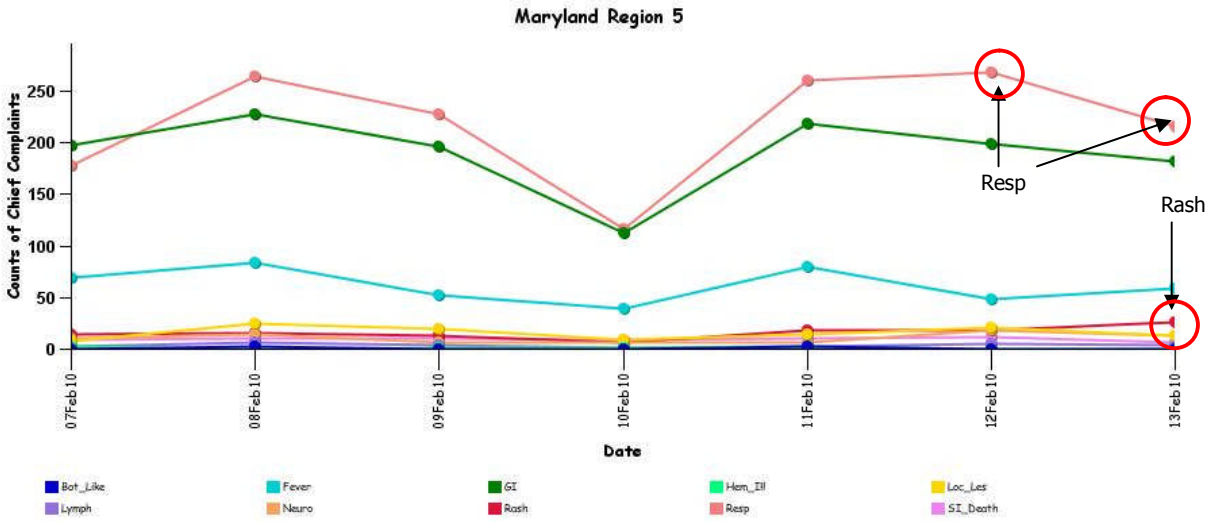
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore city, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE

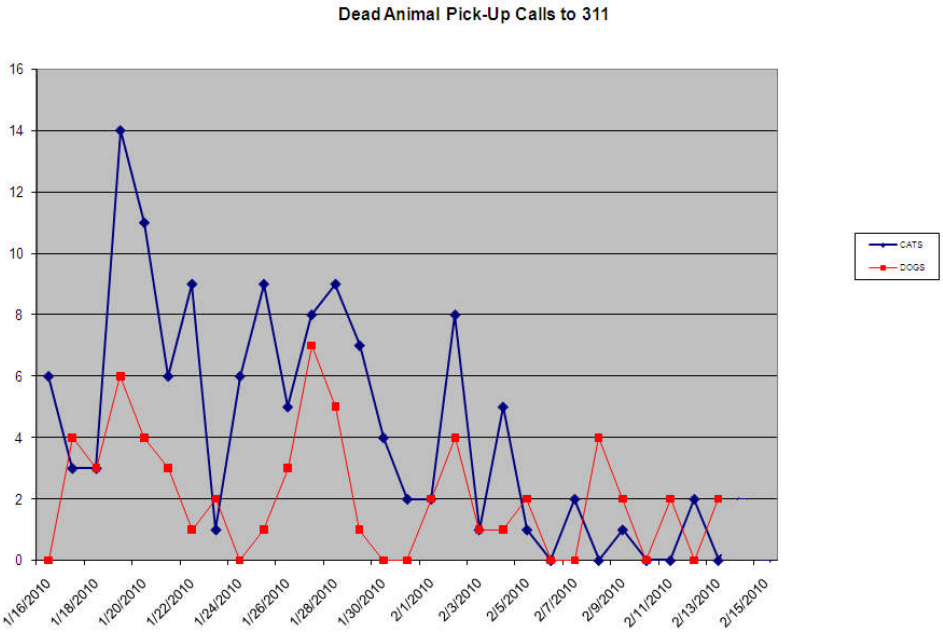


* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



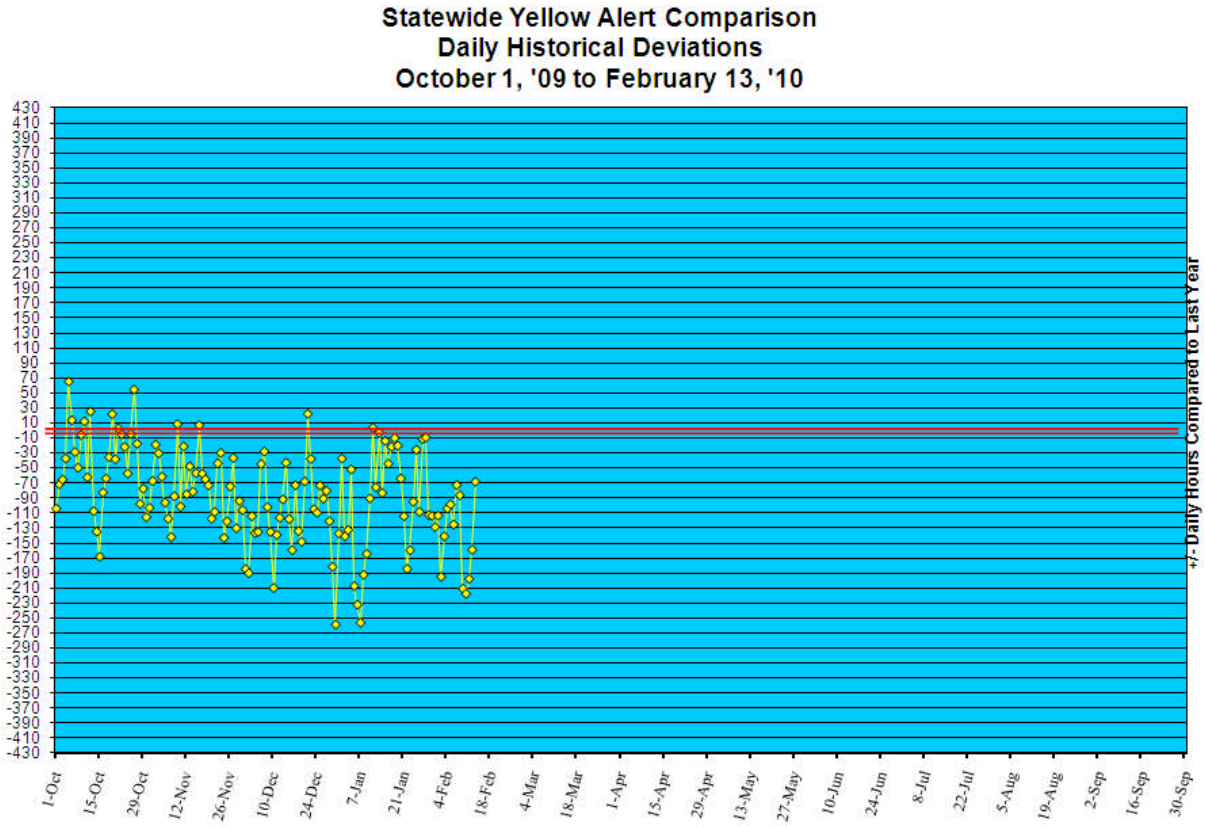
* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

BALTIMORE CITY SYNDROMIC SURVEILLANCE PROJECT: No suspicious patterns in the medic calls, ED Syndromic Surveillance and the animal carcass surveillance. Graphical representation is provided for animal carcass surveillance 311 data.



REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/09.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in January 2010 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (Feb 7- Feb 13, 2010):	05	0
Prior week (Jan 31- Feb 6, 2010):	12	0
Week#06, 2009 (Feb 8- Feb 14, 2009):	06	0

10 outbreaks were reported to DHMH during MMWR Week 6 (February 7-February 13, 2010)

7 Gastroenteritis outbreaks

7 outbreaks of GASTROENTERITIS in Nursing Homes

3 Respiratory illness outbreaks

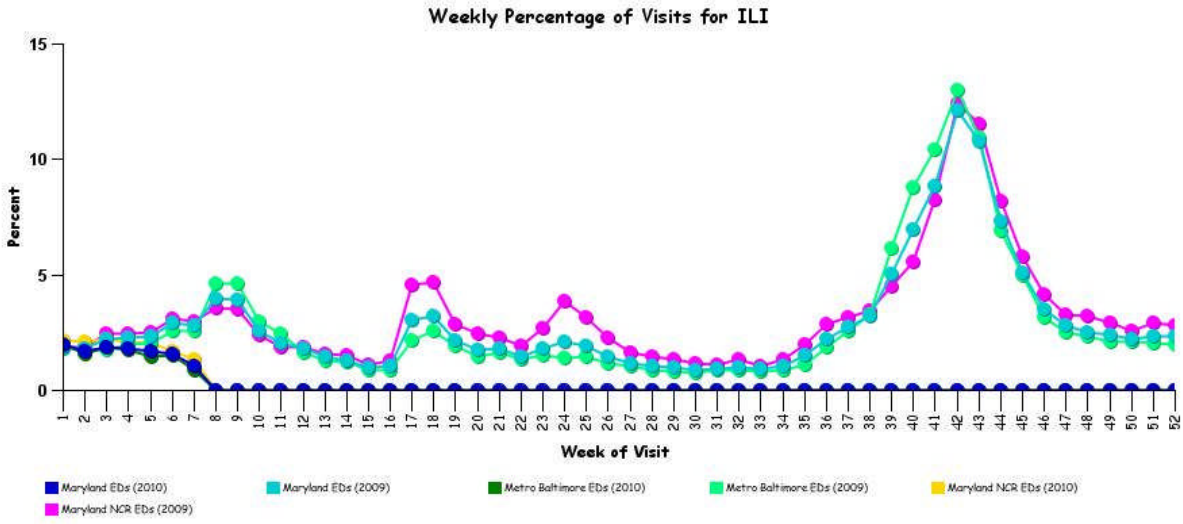
3 outbreaks of PNEUMONIA in Nursing Homes

MARYLAND INFLUENZA STATUS: Influenza activity in Maryland for Week 06 is SPORADIC.

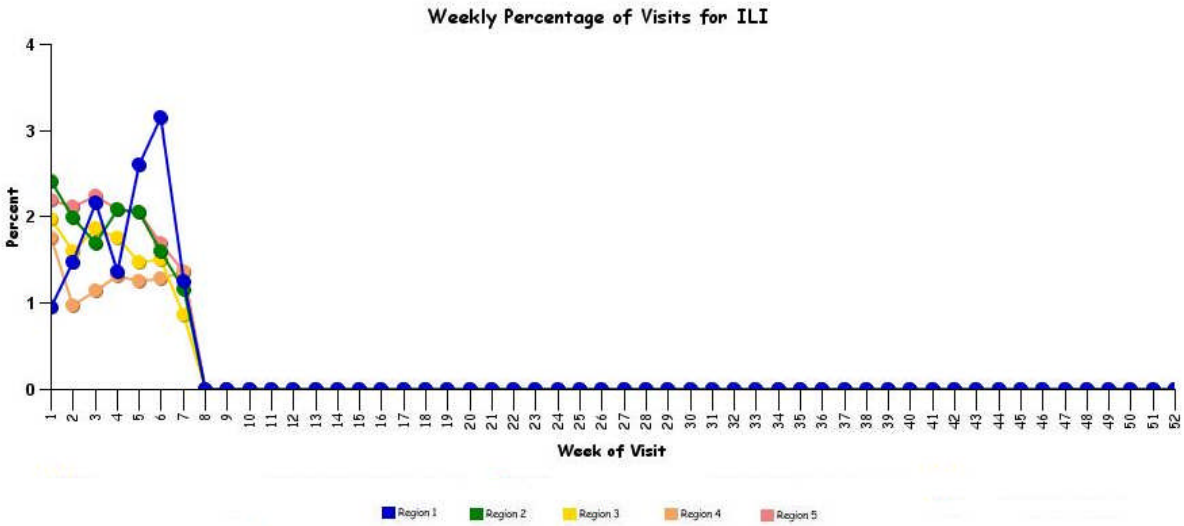
YNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the
week.



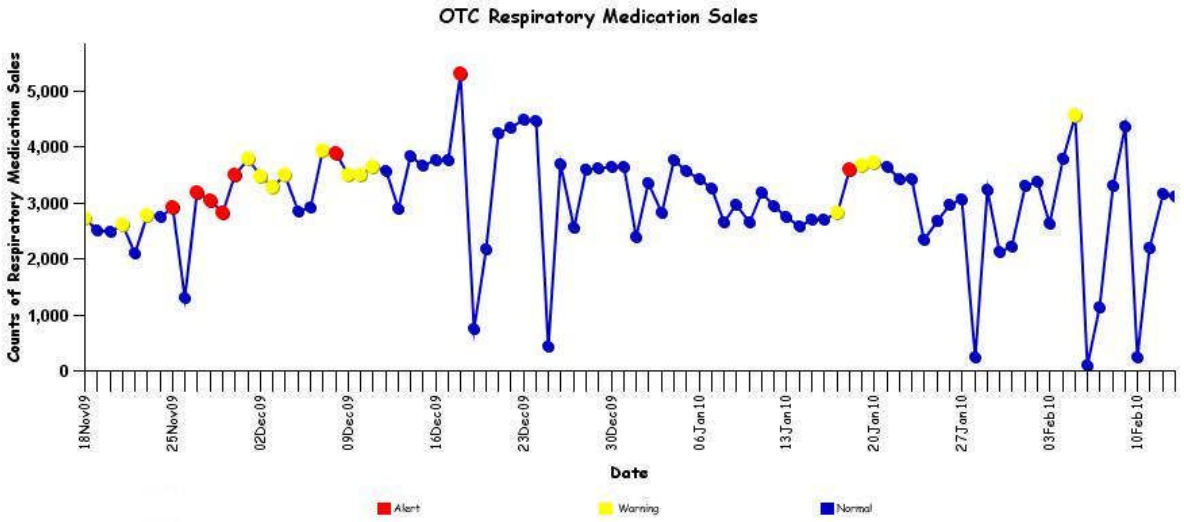
* Includes 2009 and 2010 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2010 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE:

WHO Pandemic Influenza Phase: Phase 6: Characterized by community level outbreaks in at least one other country in a different WHO region in addition to the criteria defined in Phase 5. Designation of this phase will indicate that a global pandemic is under way. Definition of Phase 5 is characterized by human-to-human spread of the virus into at least two countries in one WHO region. While most countries will not be affected at this stage, the declaration of Phase 5 is a strong signal that a pandemic is imminent and that the time to finalize the organization, communication, and implementation of the planned mitigation measures is short.

US Pandemic Influenza Stage: Stage 0: New domestic animal outbreak in at-risk country

**More information regarding WHO Pandemic Influenza Phase and US Pandemic Influenza Stage can be found at:
http://preparedness.dhmh.maryland.gov/Docs/PandemicInfluenza/PandemicInfluenzaResponseAnnex(Version7.2).pdf

AVIAN INFLUENZA-RELATED REPORTS:

WHO update: As of February 12, 2010, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 476, of which 283 have been fatal. Thus, the case fatality rate for human H5N1 is about 59%.

AVIAN INFLUENZA, HUMAN (INDONESIA):13 Feb 2010, The Ministry of Health of Indonesia has announced a new case of human infection of H5N1 avian influenza. A 25-year-old female from South Jakarta District, DKI Jakarta Province died on 25 Jan 2010. Laboratory tests were positive for H5N1 virus infection. The patient was possibly infected from direct contact with poultry. Of the 163 cases confirmed to date in Indonesia, 135 have been fatal.

AVIAN INFLUENZA, HUMAN (EGYPT):13 Feb 2010, The Ministry of Health of Egypt has announced a new case of human H5N1 avian influenza infection. The case is a 37-year-old male from Helwan District, Helwan Governorate. He developed symptoms on 31 Jan 2010 and was hospitalized on 6 Feb 2010, where he received oseltamivir treatment. He is in a critical condition. The case was confirmed by the Egyptian Central Public Health Laboratories, a National Influenza Center of the WHO Global Influenza Surveillance Network (GISN). Of the 97 laboratory confirmed cases of avian influenza A(H5N1) reported in Egypt, 27 have been fatal.

AVIAN INFLUENZA (CAMBODIA, MYANMAR, NEPAL, VIETNAM): 10 Feb 2010, In 3 Asian countries, the high pathogenic bird flu virus H5N1 broke out, according to OIE reports. In the South of Burma, the disease has been detected on a poultry farm with 2500 animals. The animals are being culled. In Nepal, the virus has been found on a poultry farm with 235 birds. In Cambodia, the virus has been found on a farm with 31 000 birds.

H1N1 INFLUENZA (Swine Flu):

Resources:

http://www.cdc.gov/h1n1flu/

http://www.dhmh.maryland.gov/swineflu/

NATIONAL DISEASE REPORTS

SALMONELLOSIS, SALAMI, SEROTYPE MONTEVIDEO (USA) 09 Feb 2010, CDC is collaborating with public health officials in many states, the Department of Agriculture's Food Safety and Inspection Service (FSIS), the Food and Drug Administration (FDA), and the State of Rhode Island to investigate a multistate outbreak of _Salmonella [enterica_ serotype Montevideo infections. Investigators are using DNA analysis of bacteria obtained through diagnostic testing to identify cases of illness that may be part of this outbreak. As of 9:00 pm EST on 4 Feb 2010, a total of 213 individuals infected with a matching strain of _S._ Montevideo have been reported from 42 states and District of Columbia since 1 Jul 2009. The number of ill persons identified in each state with this strain is as follows: AK (1), AL (2), AZ (5), CA (30), CO (4), CT (4), DC (1), DE (2), FL (3), GA (3), IA (1), ID (2), IL (13), IN (3), KS (3), LA (1), MA (12), MD (1), ME (1), MI (4), MN (5), MO (1), NC (9), ND (1), NE (1), NH (1), NJ (8), NM (2), NY (18), OH (9), OK (1), OR (9), PA (6), RI (2), SC (1), SD (3), TN (5), TX (7), UT (9), VA (1), WA (15), WV (1), and WY (2). Because this is a commonly occurring strain, public health investigators may determine that some of the illnesses are not part of this outbreak. Among the persons with reported dates available, illnesses began between 4 Jul 2009 and 21 Jan 2010. Infected individuals range in age from less than 1 year old to 93 years old and the median age is 37 years. 53 percent of patients are male. Among the 159

patients with available information, 42 (26 percent) were hospitalized. No deaths have been reported. Recent test results provided by the Rhode Island Department of Health revealed that an opened container of black pepper used in the manufacturing of at least some of the recalled products was positive for _S._ Montevideo and that the DNA fingerprint matched the outbreak strain: <http://www.ri.gov/press/view/10647>. The FDA is investigating the supply chain of the black pepper used in the manufacturing of the recalled meat products. The Agency has collected and is currently analyzing black pepper samples. To date, all the samples collected and analyzed by the FDA have tested negative, however, sample collection and analysis continues. CDC and its public health partners are continuing the epidemiologic investigation to verify that the outbreak is controlled. CDC, USDA-FSIS, and FDA continue to work closely to identify the specific products or ingredients that became contaminated and how the contamination occurred and to identify any other food vehicles that may be involved. (Food Safety Threats are listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

BOTULISM, CANINE, SUSPECTED (FLORIDA): 08 Feb 2010,A month after frigid temperatures killed reptiles all over South Florida, veterinarians are still treating dogs that may have contracted botulism by gnawing iguana carcasses. The result: paralysis so severe that a few had to be euthanized. Like other cold-blooded creatures, thousands of iguanas froze to death during the freeze. Some dogs mistaking them for chew toys have shown classic symptoms of a disease so rare that most vets don't see a case for a decade. "I think it's botulism, although it's nearly impossible to prove definitively," said Dr. James Dugan, a Pinecrest vet. His clinic has treated several dogs suffering varying degrees of paralysis since the cold snap. All had munched on iguanas. "Why they want to eat a rotten reptile that smells horrible and could kill you, I don't know," Dugan said. Paralysis begins in the back end, then progresses to the front legs, and in some cases disables the diaphragm. At that point, dogs must be intubated so they can breathe, an expensive step that many owners can't afford. In at least 2 such South Florida cases, dogs that couldn't breathe were euthanized. Serious problems like pneumonia also arise when paralysis affects the esophagus. Broward County veterinary neurologist Dr. Brian Roberts first raised the alarm about the possible botulism link in a mass e-mail to South Florida colleagues in late January 2010. He said that several dogs had come to Veterinary Specialists of South Florida in Cooper City with paralyzed hindquarters. The common denominator: dead iguanas. "We didn't have a clue what it was for days or weeks," said Roberts, who has sent tissue samples to the state's animal diagnostic laboratory in Kissimmee. He diagnosed botulism after ruling out other possible conditions. There's not much a vet can do beyond "supportive care and range-of-motion" exercises, he added. Typically, paralysis sets in a day or so after the iguana encounter, and the worst symptoms last at least a week. The dogs can eat but can't stand or walk. However, they're not in pain, vets say. That's the case with Baby Miller, a 68-pound, 8-year-old Pompano Beach pit bull whose human family rushed her to Dr. Kevin McAllister's clinic on 26 Jan 2010. "She picked up a dead iguana in the yard and by the next day was showing signs of weakness in the back leg that progressed to the front, and she could no longer stand," McAllister said. "She was in a little distress: high heart rate, anxious and totally down." The family "had no idea what it was, and I didn't either," said McAllister, in practice for 10 years. "We were thinking maybe a stroke or [human] drugs. In hindsight, she had the classic signs of botulism. I'd never seen it." Baby's [owner] said that Baby had "gotten hold of an iguana" 2 days before she showed symptoms. "My brother found her on the floor, and she couldn't move," said the owner. Blood tests ruled out painkillers and roofing sealer, 2 possible culprits. The normally playful Baby is slowly recovering. "She is more irritated than anything. She's very aware of what's going on. She can lift her head and wag her tail and is trying to sit up. She has "refused to go to the bathroom in the house," and must be carried outside. The tab so far: USD 300 at the vet; USD 6 a day for Pedialyte to keep Baby hydrated. "She's been stable and didn't get any worse, and that's what we look for," McAllister said. Dr. Jonathan Kreissler of Miami Veterinary Specialists said his hospital has seen "5 similar cases in 3 weeks. Three are not walking; one was euthanized," and one didn't return for follow-up care. Its owners can't be reached, and Kreissler suspects the dog has died. Two remain at his clinic getting "recumbent care to make sure they don't get bed sores" or secondary infections. One is a Cane Corso, a huge dog in the mastiff family. Kreissler said the dog weighed 110 pounds in September 2009 and weighs 70 now due to muscle wasting. The dog had complications and spent a day on a ventilator. Care so far is in 5 figures, he said. Still, Kreissler isn't sure he's dealing with botulism or that reptiles are the culprit. "It would be really convenient to blame the iguanas, but it might be premature," he said. With botulism, he'd expect to see problems with the autonomic nervous system that controls involuntary functions like pupil dilation and heart rate, "and I'm not seeing any of that. These dogs are alert and can wag their tails." Still, in analyzing the cases, vets have to take into consideration recent, abnormal environmental changes, such as a prolonged freeze that kills cold-blooded reptiles, he said. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

PLAGUE, COUGAR (WYOMING): 08 Feb 2010, The 5th cougar to succumb to the plague in recent years was found at the southern end of Grand Teton National Park in recent days. The female cat was known in the area of Jackson, Wyoming for wandering around the region. The 6-year-old cat found by biologists had been tagged with a global positioning system collar. The plague is naturally occurring in the area. Plague is an infectious disease caused by the bacterium _Yersinia pestis_. It is found in animals throughout the world, most commonly in rats but also in other rodents like ground squirrels, prairie dogs, chipmunks, rabbits and voles. Fleas typically serve as the vector of plague. People can also get infected through direct contact with an infected animal, through inhalation, and, in the case of pneumonic plague, person to person. (Plague is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

BOTULISM, UNEVISCERATED FISH, RISK, RECALL (USA: ex NORWAY): 08 Feb 2010, Haifa Smoked Fish, located in Queens, New York, is recalling Haifa brand vacuum packaged Whole Schmaltz Herring with the lot number 20, because the product was found to be uneviscerated. The lot being recalled is a product of Norway, individually vacuum-packed in clear plastic pouches with lot #20 indicated on the label and distributed through various food retailers in the NY and NJ area. The Whole Schmaltz Herring was sampled by a New York State Agriculture and Markets Food Inspector during a routine inspection. Subsequent analysis of the product by New York State Food Laboratory personnel confirmed that Whole Schmaltz Herring was not properly eviscerated prior to processing. The sale of uneviscerated fish is prohibited under New York State Agriculture and Markets regulations because _Clostridium botulinum_ spores are more likely to be concentrated in the viscera than any other portion of the fish. Uneviscerated

fish has been linked tooutbreaks of botulism poisoning. No illnesses have been reported to date in connection with this problem. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

BOTULISM, AVIAN (TURKS AND CAICOS ISLANDS): 13 Feb 2010, Nature lovers are being asked to look out for sick birds after a frail flamingo was captured last year [2009] with signs of a deadly avian disease. Avian botulism -- which causes paralysis and often death in birds -- could potentially wipe out the islands' much loved water-based wildlife. Herons, pelicans, flamingos and terns are among the species at risk from the fatal illness. Scientists have confirmed that the TCI's wetlands could easily support the growth of the avian botulism, but apart from the solitary flamingo they have not yet found any clear signs of sickness among local birds. Concerns were 1st raised in December [2009] when an anxious citizen captured a fragile flamingo and took it to the Turks and Caicos Society for the Prevention of Cruelty to Animals (TCSPCA)'s Doctor of Veterinary Medicine (DVM) for diagnosis. The vet noticed some possible signs of avian botulism and decided that a thorough examination of the species' habitat was essential. The Department of Environment and Coastal Resources (DECR) immediately visited wetlands in North and Middle Caicos and in Providenciales where the birds spend their day time foraging. There they conducted on-site measurements of various environmental parameters believed to influence the outbreak of the disease. Preliminary results indicated that the water temperature water, pH, salinity and other factors were favourable for the growth of Clostridium botulinum - the bacterium that causes avian botulism. However the team did not spot any bird that showed symptoms of avian botulism nor any carcasses. Despite the apparent absence of the disease the DECR continues to be cautious, and members are currently undertaking a number of precautions to decrease the likelihood of outbreaks. Among these safety measures are the prompt removal of dead animals from wetlands, reduction of decaying matter in the areas and the prevention of sharp water draw downs that could kill fish and aquatic invertebrates. All these actions could help to decrease the build-up of toxin-laden maggots and rapid growth of botulism spores. Clostridium botulinum can be found in the tissues of most wetland inhabitants, including aquatic insects, mollusks, and crustacean and many vertebrates, including healthy birds. Botulinum toxin is produced only after the spores germinate, when the organism is actively growing and multiplying. The spores are resistant to heating and drying and can remain viable for years. Many species of birds and some mammals are affected by type C botulism. In the wild, water birds suffer the greatest losses, but almost all birds are susceptible. Filter-feeding and dabbling waterfowl and probing shoreline birds appear to be among the species at greatest risk. In the Turks and Caicos Islands, there are many water birds that are at risk from the disease including the Greater Flamingo, Brown Pelican, Tricolored Heron, Reddish Egret, West Indian Whistling-Duck, Clapper Rail, Sora, Least Grebes and the Moorhen. The public is asked to notify the DECR of any sightings of seemingly sick birds or abnormal behaviour from water birds. (Botulism is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

Q FEVER (NETHERLANDS) 13 Feb 2010, A total of 3 dairy goat farms, in Hilvarenbeek, Esch and Liessehave, been declared as Q-fever infected. In Hilvarenbeek, this refers to a farm including 1050 dairy goats, in Esch 3000 and in Liessel 1030 dairy goats. The declaration followed the identification of the Q fever bacterium in each of the 3 farms in 2 separate tests, performed in both the Animal Health Service (GD) laboratory as well as in the Central Veterinary Institute (CVI), in 2 different milk samples. The Food and Consumer Product Safety Authority (VWA) of the Ministry of Agriculture, Nature and Food Quality (LNV) has placed warning signs on the farms. The full addresses and the locations of the infected farms will be made public on the web-site of the VWA. (Q Fever is listed in Category B on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX (UK) 10 Feb 2010, A death in Blackpool follows 9 fatalities in Scotland since the contaminated heroin emerged in December 2009. Health experts are investigating whether the heroin was contaminated with anthrax at source. A drug user has become the 1st person to die in England from a batch of anthrax-contaminated heroin, which has now killed 11 addicts in the UK and Germany. The unnamed user from Blackpool is the 2nd case in England to emerge in the last week after it emerged 5 days ago that a female addict from London was being treated in hospital. The death in Blackpool follows 9 fatalities across central Scotland since the contaminated heroin emerged in early December 2009 in Glasgow. There have been 19 confirmed cases in Scotland [now 21 cases, see below], with deaths in Glasgow, Lanarkshire, Dundee, Fife and Stirling. The German victim died in Aachen in December 2009, but the death was only officially linked to the batch found in the UK last week, after the strain was found to be "indistinguishable" from the type of anthrax found in Scotland. The surge of cases -- the most serious anthrax outbreak in the UK in recent times -- has puzzled police and health experts, who remain uncertain how or where the heroin became infected. The frequently lethal bacteria is mostly found in animals in Asia and Africa and very rarely occurs in Europe. They are investigating whether the heroin was contaminated at its likely source in Afghanistan, perhaps from contaminated soils or contact with infected animal skins, or was infected by a cutting agent used by drug dealers or traffickers closer to Europe. The cases in London and Germany have no known link to the Scottish outbreak [as of yet, the results of genomic analysis are awaited, increasing anxieties that the contamination could be widespread. There has been only one previous case of a heroin user dying from anthrax, in Norway in 2000. Dr Arif Rajpura, the director of public health with NHS Blackpool, repeated warnings to heroin users to stop taking the drug or watch closely for unusual symptoms, including rashes, swelling, severe headaches or high temperatures. "Heroin users are strongly advised to cease taking heroin by any route, if at all possible, and to seek help from their local drug treatment services. This is a very serious infection for drug users, and prompt treatment is crucial," he said. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

ANTHRAX, HUMAN, BOVINE (ARGENTINA): 08 Feb 2010, On [6 Feb 2010], 2 adult cows died suddenly in a herd of 100 head. One of them had an extravasation of blood from her natural orifices. The animals had not been vaccinated. This herd is within 1500 meters [1 mi] of a neighbouring herd in which anthrax was diagnosed on 15 Jan 2010. The same veterinary clinician handled both

outbreaks. The carcasses were handled in the standard "tapado controlado" procedure after they had been sprayed with 5 percent formaldehyde. [This control procedure covers the carcasses with lime and a heavy-duty plastic tarpaulin; after 9 months the tarp, lime, and carcass remains are removed and buried. - Mod.MHJ] This summer [2009-10] the humidity and high temperatures have been ideal for a major incidence of anthrax. This high surveillance area in the Partido de Azul [province of Buenos Aires] involves 92 cattle ranches. (Anthrax is listed in Category A on the CDC list of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: www.tinyurl.com/flu-enroll

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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